

USAKOVSKAYA, Sof'ya Robertovna; KOSTINSKIY, D.N., red.; MARTYNOVA,  
V.A., mladshiy red.; GOLITSYN, A.V., red. kart; BURLAKA,  
N.P., tekhn. red.

[Cameroon] Kamerun. Moskva, Geografiz, 1962. 35 p.  
(MIRA 16:4)

(Cameroon)

USAKOVSKAYA, T. S., GOLUBEVA, G. P., RYABCHENKO, N. I., SOKOLOVA, T. D.,  
TSEYTLIN, P. I., SPITKOVSKI, D. M. (USSR).

Structural Lability of Deoxyribonucleic Acids and Deoxyribonucleoproteins as a  
function of their Molecular Morphology.

report presented at the 5th Int'l.  
Biochemistry Congress, Moscow, 10-16 Aug. 1961

TSEYTLIN, P. I.; USAKOVSKAYA, T. S.

Effect of ionizing radiation on the complexes of deoxyribonucleic acid with methylamine; on the problem of radiosensitive and radioresistant forms of deoxyribonucleic acid. Radiobiologiya 2 no.3:356-361 '62. (MIRA 15:7)

1. Institut eksperimental'noy biologii AMN SSSR, Moskva.

(NUCLEIC ACIDS) (METHYLAMINE)  
(X RAYS--PHYSIOLOGICAL EFFECT)

TSEYTLIN, P.I.; USAKOVSKAYA, T.S.; SPITKOVSKIY, D.M.; TONGUR, V.S.

Study of the radiosensitivity of DNA on the molecular level.  
Trudy MOIP. Otd. biol. 7:42-46 '63. (MIRA 16:11)

L 31194-66 EWP( )/EWT(m) RM

ACC NR: AP6022568

SOURCE CODE: UR/0216/66/000/002/0197/0210

AUTHOR: Tseytlin, P. I.; Spitzkovskiy, D. I.; Gorin, A. I.; Ivannik, B. P.;  
Kulikova, L. G.; Luchkina, L. A.; Martynov, E. V.; Ryabchenko, N. I.; Usakovskaya, T. S.

ORG: Institute of Experimental Biology, AMN SSSR, Moscow (Institut eksperimental'noy biologii AMN SSSR)

TITLE: Analysis of radiation injury to deoxyribonucleoproteins at the molecular and supramolecular levels

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 2, 1966, 197-210

TOPIC TAGS: radiation injury, protein, DNA, x ray irradiation, hydrogen bonding, molecular structure

ABSTRACT: X-irradiation does not give rise to covalent crosslinks within the DNA macromolecule, i.e., it does not prevent the separation of DNA strands or interfere with its replication. The authors' studies on optic rotation of DNA and DNP and melting curves indicate that irradiation causes latent damage to the system of hydrogen bonds. The formation of single breaks in the polynucleotide skeleton may result in rotation around the remaining single bond at the site of the break. This may produce local change in the configuration of the DNA macromolecule, resulting in steric hindrance between the DNA and corresponding protein molecule.

Irradiation with doses below  $10^3$  rad causes breaks only in a small number of DNA molecules. This does not alter the physicochemical properties of the DNA or DNP as a whole, although it undoubtedly has some biological

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UDC: 577.391

L 31194-66

ACC NR: AP6022568

effect. Thus, there is no reason to believe that the effects of low irradiation doses, as manifested in structural rearrangements of chromosomes, are related to changes in the DNA macromolecules. The results of studies on the physicochemical properties of supramolecular oriented DNP structures present in a medium with physiological ionic strength indicate that these formations are highly sensitive to radiation. Orig. art. has: 10 figures. [JPRS]

SUB CODE: 07, 06, 20 / SUBM DATE: 18Dec65 / ORIG REF: 013 / OTH REF: 013

Cord 2/2 CC

USAKOVSKIY, A.Ye., starshiy master

Rapid lathe operator S.M. Bushuev. Mashinostroitel' no.1:23-24  
N '56. (MIRA 12:1)

1. Avtozavod imeni Likhacheva.  
(Turning)

USAKOVSKIY, L.

PA 30T93

USSR/Ships - Construction  
Tools

Oct 1947

"Problems and Functions of Tool Agencies," L. Usakov-  
skiy, Engr, 1 $\frac{1}{2}$  pp

"Morskoy Flot" No 10

Discussion of the proper operation and functions of  
tool agencies in supplying tools, in acting as a cen-  
tral storeroom for tools, in buying new tools and  
materials necessary to make them, and in keeping tools  
in proper operating condition.

LC

30T93



USAKOVSKIY, L., inzhener.

Tasks and duties of the services in charge of tools and  
instruments. Mor. flot 7 no.10:41-42 O '47. (MLRA 9:6)  
(Toolroom practice)

USA KOVSKIY, M., inzh., laureat Stalinskoy premii

Automatic loaders. IUn. tekhn. 5 no. 12:12-14 D '60.

(MIRA 14:1)

(Loading and unloading)

(Automatic control)

ZIMIN, P.A., kandidat tekhnicheskikh nauk; USAKOVSIIY, M.Sh., inzhener.

Crated transport of bricks. Zhel.dor.transp. 39 no.2:77 7 '57.  
(MLBA 10:3)

(Bricks--Transportation)

SADOVSKIY, T., inzh.; USAKOVSKIY, V., inzh.

Vibration water lifts. Stroitel' no.2:29 ~~1~~ ~~MI~~. (MIRA 14:7)  
(Pumping machinery)

USAKOVSKIY, V.M.; ~~PRIMENENIE~~ MARYAN, N.G., red.; DYBINA, V.N., tekhn.red.

[Using new materials and designs of pipes during the current seven-year plan] Primenenie novykh materialov i konstruktsii truboprovodov v tekushchei semiletke; leksiia dlia studentov VZIIIta V-VI kursov vseh spetsial'nostei. Moskva, Vses. zaachnyi in-t inzhenerov shel-dor.transp., 1959. 19 p.

(MIRA 13:4)

(Pipe)

ACC NR: AP6035759

(A,N)

SOURCE CODE: UR/0413/66/006/019/0130/0131

INVENTOR: Slavin, R. M.; Usakovskiy, V. M.; Babakhanov, Yu. M.; Lugovskoy, M. V.

ORG: none

TITLE: Hermetic electric pump. Class 59, No. 186862. [announced by the All-Union Scientific Research Institute for Rural Electrification (Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva)]

SOURCE: Izobreteniya, promyshlemnye obraztsy, tovarnyye znaki, no. 19, 1966, 130-131

TOPIC TAGS: ~~mechanical pump~~, fluid pump, hydraulic pump, electric motor

ABSTRACT: An Author Certificate has been issued for a hermetic electric pump consisting of a housing containing a pump and an electric-drive motor with an outer rotor and a female stator, the pump is cooled by a part of the fluid which is transferred from the discharge to the suction nozzle. To simplify design and intensify cooling, the pump's working members are located on the surface of the rotor or of the rotor and the electric-motor housing, and the winding of the stator is designed for the direct transfer of the cooling flow through the stator's slots. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 26Apr65/

Card 1/1

UDC: 621.67-83

USAKOVSKIY, V.M., inzh.

Study of the possibility of using vibration techniques for  
raising water from slim wells. Nauch. trudy VIESKH 7:5-8 '60.  
(MIRA 15:8)  
(Stock and stockbreeding--Water supply)  
(Water supply, Rural)

MIKHAI'CHENKO, G.A.; MISTUREV, Yu.A.; TOMTOV, N.A.; USALOV, Yu.P.

Topography of the luminosity apparent in the mechanical de-excitation  
of  $\beta$ -irradiated alkali halide crystal phosphors. Opt. i spektr. 18  
no.6:1072-1073 Je '65. (MIRA 18:12)



USAN, A.L

28(2)

PHASE I BOOK EXPLOITATION SOV/1679

Froshikov, Aleksandr Ivanovich, and Aleksandr Lukich Usan

Schetno-perforatsionnyye 45-kolonnnyye mashiny; tekhnicheskoye  
obslyuzhivaniye i remont (Forty-Five Column Punched Card Computer;  
Servicing and Repair) Moscow, Mashgiz, 1958. 270 p.  
3,000 copies printed.

Reviewers: N.A. Vasilevskiy and I.F. Merekalov; Ed.: M.G. Rappoport;  
Ed. of Publishing House: A.G. Akimova; Tech. Ed.: A.F. Uvarova;  
Managing Ed. for literature on Machine Building and Instrument  
Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: The book is intended primarily for mechanics engaged in  
the maintenance and repair of punched card computers, and may  
also be useful to people employed in the field of mechanization  
of calculations.

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Forty-Five Column Punched Card (Cont.)

SOV/1679

**COVERAGE:** The book contains basic information for the maintenance and repair of a 45-column punched card computer. The material is based on the experience of several Soviet computer stations and of Soyuzmashuchet. In addition, instructions found in the technical and servicing manuals accompanying the machine are taken into consideration. A brief description of the construction of a 45-column punched card computer is given, as well as methods of determining defects in mechanisms and computer blocks, and some practical examples of modernizing computers in order to increase their utility. No personalities are mentioned. There are no references.

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AVAILABLE: Library of Congress (QA 75.G77)

LK/jmr  
6-15-59

Card 12/12

USAN, Janez (Vrsac)

Remarks concerning the article "Road Curvatures." Obz mat fiz 7  
no.3:135-138 '60. (EEAI 10:5)  
(Roads)

KUBAREV, A.I.; USAN, M.V.; ZHURTSSEV, V.G.

Organization of a preventive statistical control. Standarti-  
zatsiia 28 no.6:38-42 Je '64. (MIRA 17:9)

USAN, M.V.; ZHURTEV, V.G.; KUBAREV, A.I.

Effect of some technological factors on the operating precision  
of automatic lathes for longitudinal form turning. Stan. 1 instr.  
35 no.10:9-10 0 '64. (MIRA 17:12;



ZHURTSSEV, V.G.; KUBAREV, A.I.; USAN, M.V.

Determination of the zones of tolerance for the adjustment of  
machine tools. Priborostroenie no.12:21-24 D '64.

(MIRA 18:3)

*USAN-PODGORNOV, B.M.*

BUKHMEN, A.S., kand.tekh.nauk; USAN-PODGORNOV, B.M., inzh.

Prestressed reinforced concrete ties for mine timbering.  
Shakht. stroi. no.12:23-26 D '57. (MIRA 11:1)  
(Mine timbering)  
(Prestressed concrete construction)

SOV/97-58-10-7/17

AUTHORS: Bukhman, A.S. (Candidate of Technical Sciences) and Usan-Podgornov, B.M. (Engineer).

TITLE: Construction of Precast Prestressed Reinforced Concrete Pit Props and Technology of their Manufacture (Konstruktsii predvaritel'no napryazhennykh zhelezobetonnykh elementov shakhtnoy krepi i tekhnologiya ikh izgotovleniya)

PERIODICAL: Beton i zhelezobeton, 1958, Nr 10, pp 383-385 (USSR)

ABSTRACT: In 1957-58 the authors of this article designed precast prestressed reinforced concrete slabs for propping coal-mine galleries. This work was carried out in conjunction with M.N. Geleskul, Candidate of Technical Sciences, in the Laboratory for New Designs of Coal-Mining Supporting Constructions, of the Scientific and Research Institute for Coal Mining (VUGI). This new type of propping slab was tested and the results are described in detail. Concrete mark 400 was used based on granite aggregate. The concrete mix was 1 : 1.5 : 1.5 and the water/cement ratio between 0.28 and 0.32. The cement was of 350-400 kg/cm<sup>2</sup> activity and was ground on vibro-grinder VM-10. The reinforcement was of 2.6 mm diameter high

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SOV/97-58-10-7/17

Construction of Precast Prestressed Reinforced Concrete Pit Props  
and Technology of their Manufacture

carbon wire with an ultimate strength of  $187 \text{ kg/mm}^2$ . The slabs were consolidated on vibrating table VS-1M. Curing was carried out at a mean temperature of  $18 - 20^\circ\text{C}$ . Tensioning was carried out on stand SNS-1 constructed by Giprouglemash. The tensioning apparatus used was of the type DP-2 of TsNIIS. Tests show that this concrete slab reaches during bending a strength of  $40 \text{ kg/cm}^2$ . Table 1 gives values obtained during tests which prove that constructions from prestressed reinforced concrete slabs type VUGI are three times stronger and much more economical than those from ordinary reinforced slabs type PNIUI. At the same time the above mentioned laboratory studied mass production of these slabs by the method of casting by vibration. Fig 2 shows the concreting yard and combine on which these slabs are manufactured. Fig 3 shows the vibrating construction used in the manufacture of slabs of rectangular cross-section. Table 2 shows that the strength of the concrete and the load-bearing capacity of the concrete slabs are adequate after only 5 - 10 days of hardening.

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SOV/97-58-10-7/17

Construction of Precast Prestressed Reinforced Concrete Pit Props  
and Technology of their Manufacture

Between 1952-54 the VUGI, in collaboration with TsNIPS, worked on the manufacture of slabs of rectangular cross-section for pit-propping, and on conveyor and stand methods of production. Fig 4 illustrates vibrating stand forming part of a concreting combine for casting prestressed reinforced concrete slabs of fashioned cross-section. Vibrators of the type I-50 were used.

There are 4 figures and 2 tables.

Card 3/3

GELESKUL, M.N.; KISELEV, Ye.S.; USAN-PODGORNOV, B.M.

Use of new reinforced concrete frame timbering made of T section  
members. Ugol' 35 no.5:41-44 My '60. (MIRA 13:7)

(Mine timbering)

(Reinforced concrete construction)

GELESKUL, M.N.; USAN-PODGORNOV. B.M.

Study of rock pressure manifestations in the mines of the  
Moscow Basin. Ugol' 36 no.6:23-24 Je '61. (MIRA 14:7)

1. Institut gornogo dela im. A.A. Skochinskogo.  
(Moscow Basin--Rock pressure)

GOLESKIL, Mikhail Nikitovich; USAN-PODGORNOV, Boris Mikhaylovich;  
KOSTAN'YAN, A.Ya., red.izd-va; BOLDYREVA, Z.A., tekhn. red.

[Repair of mine workings for the timberer] Krepil'shchik po  
remontu gornykh vyrabotok. Moskva, Gosgortekhnizdat, 1962. 246 p.  
(MIRA 15:7)

(Mine timbering)



USAN-PODGORNOV, B.M., inzh.

Study of the operating conditions of a support in drifts driven  
in unstable rocks. Nauch. soob. IGD 15:120-128 '62.  
(MIRA 17:2)

USAN-PODGORNOV, B.M.

Determining initial mining engineering parameters for the calculation  
of drift supports in Moscow Basin mines. Fiz. mekh. svois., dav. i  
razr. gor. porod. no.2:196-206 '63. (MIRA 17:1)

USANOV, A.

Eighty projects. Sov.shakht. 10 no.4:15 Ap '61.

(MIRA 14:9)

1. Nachal'nik proyektno-konstruktorskogo byuro shakhty No.5-bis  
"Trudovskaya".

(Mining engineering)

B7R

22

10714\* Method for 100% Quality Control of Spark-Plug  
Insulators. (Russian.) A. D. Usanov. *Steklo i Keramika*, v. 9,  
Mar. 1952, p. 16-19.  
Describes method and equipment for the above. Typical data  
are charted and tabulated.

COAR, A. F.

Spark 1842

Standardization of spark plugs for use in the tractor engine. Avt. ...  
No. 3, 1953.

Monthly List of Russian Accessions, Library of Congress  
June 1953. MOL.

**USANOV, A D.**

USSR/Engineering - Fuel pumps

Card 1/1 : Pub. 12 - 3/14

Authors : Chapchaev, A. A.; Usanov, A. D.; and Minyaylov, V. F.

Title : Standardizing fuel pumps for automobile engines

Periodical : Avt. trakt. prom. 5, 9-12, May 1954

Abstract : The editorial gives some information concerning tests, conducted by the Scientific Automotive Institute, on standardizing fuel pumps for the GAZ-51, ZIM, GAZ M-50, ZIS-120, and ZIS-5M automobile engines. Illustrations and diagrams depicting the testing of fuel pumps, are presented. Graph; drawings.

Institution : .....

Submitted : .....

USANOV, A.D., inzhener

Standardisation in the automobile industry. Standartizatsiya  
no.2:14-19 Mr-Ap '55. (MLBA 8:6)

1. Nauchnyy avtomotorny institut.  
(Automobiles engineering--Standards)

USANOV, A. D.

USANOV, A. D. "Investigation of the Effect of the Basic Parameters and Conditions of Operation of an Automobile Engine on the Operating Condition of the Spark Plugs." Min Automobile Industry USSR. State Union Order of Labor Red Banner Sci Res Automobile and Automotor Inst (NAMI). Moscow, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,



04 011711 11-6  
KUROV, B.A., kand.tekhn.nauk; MINYAYLOV, V.F.; USANOV, A.D., kand.tekhn.nauk.

Engine of the FIAT-600 automobile. Avt.i trakt.prom. no.7: ~~44~~ 46  
Jl '57. (MIRA 10:11)

(Italy--Automobiles--Engines)

AUTHOR: Usanov, A.D., Chapchayev, A.A.

113-58-7-11/25

TITLE: The Effect of the Operating Conditions of the Engine on the Operation of the Spark Plugs (Vliyeniya rezhimov ekspluatatsii dvigatelya na rabotu svechey zazhiganiya)

PERIODICAL: Avtomobil'naya promyshlennost', 1958, Nr 7, pp 22-25 (USSR)

ABSTRACT:

Research conducted by Academician Kulebakin of the TsKPP mototsiklostroyeniya (TsKB of Motorcycle-Building), the LPI imeni Kalinina (LPI imeni Kalinin) and the NIIAvtopriborov, has cast light on several technical problems connected with the increase of the reliability and evaluation of the thermal properties of spark plugs. Investigations were made with the aid of one-cylinder sections and the many-cylinder engines of serial production, such as GAZ M-20, GAZ-51, ZIL-120 and MZMA-401. Thus the characteristics of an AllU plug with a heat chamber of 0.61 cubic cm content changes sharply depending on the spot they are inserted, while the temperatures of a plug of the same type but with a heat chamber content of 0.21 cubic cm almost never change, no matter where the plug is inserted. Consequently, changes of the heat chamber content should be utilized in the standardization of spark plugs and creation of a rational thermal range. The AllU plug, with its heat chamber content of

Card 1/2

113-58-7-11/75

The Effect of the Operating Conditions of the Engine on the Operation of the Spark Plugs

0.61 cubic cm, is close to the A16U plug, of 0.53 cubic cm, with respect to thermal characteristics. It was found that the existing plug type most suitable for the thermal tension conditions of the engines is a 14-mm spark plug with a threadless fastening of the shaft of the central electrode to the uralite insulator, and with the core fastened to the spark body by an airtight powder sealing. There are 2 photos, 3 graphs, and 3 diagrams.

ASSOCIATION: NAMI (NAMI)

1. Spark plugs--Performance
2. Spark plugs--Thermal properties

Card 2/2

USANOV, A.V., inzh.; LARYUKHINA, G.G., inzh.

Shortcomings in methods for testing dusters and sprayers. Trakt.  
i sel'khoz mash. 8:29-30 Ag '58. (MIRA 11:8)  
(Spraying and suting equipment--Testing)

IL'IN, Gennadiy Pavlovich; USANOV, Aleksandr Vasil'yevich; MUKHLIN, A.I., red.;  
IOFINOVA, TS.B., red. izd-va; LOBANKOVA, R.Ye., tekhn. red.

[Machinery and equipment for the reforestation of cutover areas]  
Mashiny i orudiia dlia sozdaniia lesnykh kul'tur na vyrubkakh.  
Moskva, Goslesbumizdat, 1961. 95 p. (MIRA 14:8)  
(Forests and forestry--Equipment and supplies) (Reforestation)

USANOV, B.

Aerial sportsmen of Lenin's city. Kryl.rod. 14 no.4:6-7 Ap  
'63. (MIRA 16:5)

1. Sekretar' Leningradskogo gorodskogo komiteta Leninskogo  
Kommunisticheskogo soyuza molodezhi.  
(Leningrad--Aerial sports)

USANOV, D.D., kand.tekhn.nauk; ERMAN, T.B.

Electric equipment for Fiat cars with small displacement engines.  
Avt. prom. no.5:43-45 '60. (MIRA 14:3)  
(Italy—Automobiles—Electric equipment)

USANOV, G.M.

Sedimentation of the productive formation in the Sangachaly-More  
-- Duvanny Island -- Bulla Island anticlinal zone (northeastern  
Baku Archipelago). Azerb. noft. khoz. 40 no.9:5-8 S '61.  
(MIRA 15:1)

(Baku Archipelago--Petroleum geology)  
(Baku Archipelago--Gas, Natural--Geology)



ALIYEV, A.K.; USANOV, G.M.

New data on oil and gas occurrences of Duvanny Island and the  
Sangachaly - More area. Neftgaz.geol. i geofiz. no.8:3-5 '65.  
(MIRA 18:8)

1. Trest "Azornefterazvedka".

USANOV, G.M.

Correlation of the cross sections of the producing formation  
of the Sangachaly-More - Bulla Island anticlinal zone in the  
western part of the Apsheron Peninsula and southeastern Kobystan.  
Azerb.neft.khoz. 41 no.5:3-7 My '62. (MIRA 16:2)

(Kobystan--Geology, Stratigraphic)  
(Apsheron Peninsula--Geology, Stratigraphic)

USANOV, G.H.; ALIYEV, A.R.

Prospects for finding oil and gas in the anticlinal zone of the Sangachaly-More, Davanny Islands, and Dulla Island. Inv. vyz. ucheb. zav.; noft' i gaz 6 no. 1: 1-24 '63. (MIRA 17:10)

1. Azərbaycan Milli İnstitutları: Kimya, M. A. Əliyev  
İnstitut "Azərbaycan".

USANOV, G.Ye.

Joint tectonics of a beryl deposit of a new morphological type.  
Sov.geol. 7 no.2:30-41 F '64. (MIRA 17:3)

**USANOV, L.**

Wide utilization of reinforced concrete elements by collective farms. Sel'.stroitel' no.11:7 N '56. (MIRA 10:1)

1. Predsedatel' kolkhoza imeni Stalina, Verontsovo-Aleksandrovskego rayona, Stavropol'skogo kraia, deputat Verkhovnogo Soveta RSFSR.  
(Reinforced concrete construction)

USANOV, M.S.

Modernization of carding machines. Za indus.Riaz. no.2:21 D '61.  
(MIRA 16:10)

1. Glavnyy inzh. Klepikovskoy vatnoy fabriki "Krasnyy Oktyabr'."

KALININ, V.I.; AVERKIN, V.D.; KLUBOV, V.A.; USANOV, N.A.

Trends in prospecting for gas- and oil-bearing structures in the Buzuluk trough and adjacent regions. Geol. nefti i gaza 7 no.11:6-13 M 163. (MIRA 17:8)

1. Kuybyshevneftegazrazvedka, Vsesoyuznyy nauchno-issledovatel'skiy geologorazvedochnyy neftyanoy institut i Orenburgnefterazvedka.

USANOV, P.; BLOKH, V.; KABANOV, N.; MAYOROV, I.; AMCHISLAVSKIY, F.

Reduction of staff personnel is an essential matter. Sots.trud  
no.3:105-126 Mr '58. (MIRA 13:3)

1. Nachal'nik otдела organizatsii proizvodstva tekhnicheskogo  
upravleniya Leningradskogo soveta narodnogo khozyaystva (for  
Usanov). 2. Direktor zavoda svetotekhnicheskikh izdeliy (for  
Blok). 3. Nachal'nik otдела truda i zarplaty Pervogo gosudarstven-  
nogo podshipnikovogo zavoda (for Kabanov). 4. Direktor Leningrad-  
skogo zavoda delitel'nykh golovok (for Mayorov). 5. Nachal'nik  
proizvodstva Leningradskogo zavoda delitel'nykh golovok (for  
Amchislavskiy).

(Leningrad--Industrial organization)



USANOV, P.

Consolidation of related enterprises in the Leningrad Economic  
Region. Sots.trud 5 no.2:70-72 F '60. (MJRA 13:6)  
(Leningrad economic region--Consolidation and merger of corporations)

SHUMILIN, Viktor Semenovich; USANOV, P.A., redaktor; FEDOROV, B.M., redaktor;  
KARASIK, N.P., ~~tekhnicheskii~~ redaktor.

[Table for computing the volume of logs edged only on two parallel  
sides] Tablitsy ob'emov neobreznykh pilomaterialov (brus'ev). Moskva,  
Gosizdatstat, 1956. 381 p. (MLRA 9:5)  
(Lumber--Mensuration)

ANIKIN, Anatoliy Mikhaylovich; ANTONOVA, Roza Petrovna; BAKHTEYAROV,  
Vladimir Dmitriyevich; USANOV, Petr Alekseyevich, retsenzent,  
otv.red.; BURKOV, Vasilii Ivanovich, retsenzent; PITERMAN,  
Ye.L., red.izd-va; KORNYUSHINA, A.S., tekhn.red.

[Building prefabricated wooden houses] Zavodskoe dereviannoe  
domostroenie. Moskva, Goslesbumizdat, 1960. 230 p. (MIRA 13:9)

(Buildings, Prefabricated) (Building, Wooden)

IVANOV, David Vasil'yevich; SHCHEGLOV, Valentin Fedorovich;  
RVANIN, Rostislav Vasil'yevich; USANOV, P.A., red.;  
KIMMEL', L.S., red. izd-va; SHIBKOVA, R.Ye., tekhn.red.

[Automation of sorting devices and bundle making machines for  
lumber] Avtomatizirovannye sortirovochnye ustroistva i paketo-  
formiruiushchie mashiny dlia pilomaterialov. Moskva, Gosles-  
bumizdat, 1963. 67 p. (MIRA 16:6)  
(Lumbering--Machinery)

ALEYNIKOV, N.A.; GOLOVANOV, G.A.; USACHOV, P.A.; TOCHILIN, M.S.;  
PTITSYN, Yu.V.

Winning high-iron magnetite-hematite concentrates. Biul.tekh.-  
ekon.inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.5:11-13  
'62. (MIRA 15:7)

(Iron--Metallurgy)

USANOV, V., brigadir slovaroy

All this should be realized. Izobr.i rats. no.11:27 N '58.  
(MIRA 11:12)

1. Vyrubochnyy tsakh fabriki "Skorokhod," Leningrad.  
(Leningrad--Shoe industry)

L 14450-66 EWT(m)/T  
ACC NR: AP6002950

WE

(A)

SOURCE CODE: UR/0286/65/000/024/0116/0116

INVENTOR: Usanov, V. A.; Usov, I. R.

ORG: none

TITLE: Altitude compensating unit for carburetors in internal combustion engines.  
Class 46, No. 177202 [announced by Central Scientific Research and Design Institute  
for Fuels Systems in Automotive and Stationary Engines (Tsentral'nyy nauchno-  
issledovatel'skiy i konstruktorskiy institut toplivnoy apparatury avtotraktornykh i  
statsionarnykh dvigateley)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 116

TOPIC TAGS: internal combustion engine, diffuser, fuel carburetor

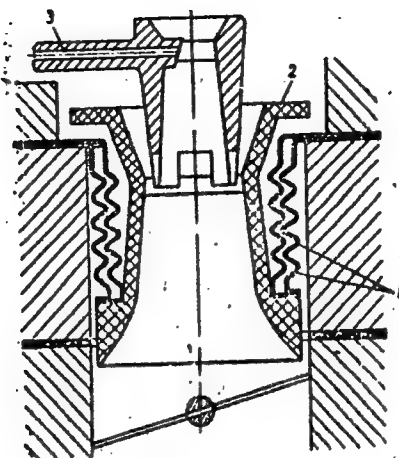
ABSTRACT: This Author's Certificate introduces an altitude compensating unit for  
carburetors in internal combustion engines. The device contains a sensing element,  
e.g. a bellows, which reacts to changes in atmospheric pressure, and an actuating  
mechanism which controls fuel supply from the atomizer to the intake channel by  
changing the vacuum in the main metering system of the carburetor. The design is

Card 1/3

UDC: 621.43.033.6(23.08)

L 11450-66

ACC NR: AP6002950



1 - sensing element; 2 - sliding diffuser; 3 - atomizer.

Card.2/3



L 14450-66

ACC NR: AP6002950

0  
simplified and the operating stability is improved by making the actuating mechanism in the form of a sliding diffuser connected to the sensing element. The atomizer is located in the throat of the diffuser.

SUB CODE: 21/ SUBM DATE: 15Aug63

1244  
Card 3/3

85433

S/170/60/003/011/004/016  
B019/B056

10.4100

11.9200

AUTHORS:

Tsiklauri, G. V. Usanov, V. V.

TITLE:

The Problem of Heat Exchange in a Tube at High Air Velocities X

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal. 1960. Vol. 3, No. 11, pp. 48-51

TEXT: The one-dimensional flow of a compressible gas in a tube is measured under the assumption of a convective heat exchange with the wall. The authors succeeded in setting up a linearized differential equation, which describes the motion of the gas. The solutions were checked by means of data experimentally determined by B. S. Pezovan at the MEI, where the local heat exchange in the case of a turbulent flow was investigated. The thin-walled tubes had a diameter of 15.95 mm, and a length, which amounted to the 29.5-fold of the diameter. The temperature of the air flow was changed between 150 and 400°K, whereas the wall temperature was kept constant at 300°K. As may be seen from the comparison of the results, the relations of the hydrodynamic theory for the heat exchange

Card 1/2

85433

The Problem of Heat Exchange in a Tube  
at High Air Velocities

S/170/60/003/011/004/016  
B019/B056

within the Mach number range of from .5 to 3 are correct and may be used  
for practical calculations. There are 1 figure and 5 Soviet references.

ASSOCIATION: Moskovskoye otdeleniye Tsentral'nogo kotloturbinnogo  
instituta im. I. I. Polzunova (Moscow Branch of the Central  
Steam Turbine Institute imeni I. I. Polzunov). X  
Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo  
mashinostroyeniya, g. Moskva (All Union Scientific Research  
Institute of Oxygen Apparatus and Machinery, Moscow)

SUBMITTED: May 16, 1960

Card 2/2

USANOV, V. V. AND TSIKLARI G. V.

"On The Analytical Determination of Effective Surfaces in  
Channels at the Presence of Heat Transfer and Friction."

Report submitted for the Conference on Heat and Mass Transfer,  
Minsk, BSSR, June 1961.

USANOV, V. V. and TSIKLAURI, G. V.

"The problem of the analytical determination of the effective surfaces in channels involved with heat-exchange and friction."

Report presented at the 1st All-Union Conference on Heat- and Mass-Exchange, Minsk, BSSR, 5-9 June 1961.

h3349

S/800/62/000/005/001/002

E202/E492

26.2/61

AUTHOR: Usanov, V.V., Engineer

TITLE: Heat exchange and resistance in axially symmetric nozzle working at slightly supersonic velocities.

SOURCE: Vsesoyuznyy nauchno-issledovatel'skiy institut kislородnogo mashinostroyeniya. Trudy. no.5. Moscow, 1967. Apparaty i mashiny kislородnykh ustanovok. 61-83

TEXT: The author aims at extending the applicability of the hydrodynamic heat exchange theory (mHET) to the region of slightly supersonic velocities. An internal setting of experiment is selected in which a long axially symmetric divergent duct (nozzle) cooled from outside by boiling water is chosen. The cross-section of duct is increasing very slowly to prevent sudden velocity jumps. Pressure and temperature are measured at various points along the axis of the duct and at the outer wall respectively, in addition to mass flow measurements, and measurements of the vapour issuing from the cooling chamber surrounding the duct. The theory is developed from first  
Card 1/2

Heat exchange and resistance ...

S/800/62/000/005/001/002  
E202/E492

principles by relating generalized Bernoulli's equation, mass flow, braking temperature, equation of state and heat balance to HHET relation. The latter links the coefficient of hydrodynamic resistance  $\zeta$  to the coefficient of heat transfer  $\alpha$ . A detailed analysis of theoretical and experimental data are given. It is concluded that HHET may be applied to velocity regions of 1.10 to 1.55  $\lambda$ , with an average value of  $Re = 7.33 \times 10^5$  for braking temperature and  $8.55 \times 10^5$  for wall temperature. HHET may be applied as a basis for duct flow calculations in the form  $St = \zeta / B$ . The work was directed by Professor A.A.Gukhman and Candidate of Technical Sciences A.F.Gandel'sman. There are 8 figures and 2 tables. X

Card 2/2

L 11074-63

EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD/JG

ACCESSION NR: AP3001379

S/0148/63/000/005/0156/0161

AUTHOR: Mal'tseva, G. K.; Postnikov, V. S.; Usanov, V. V.

57  
56

TITLE: Internal friction of CuAu and Cu sub 3 Au alloys

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1963, 156-161

TOPIC TAGS: internal friction, CuAu alloy, Cu sub 3 Au alloy, reorganization of atoms, bond energy, hetero atoms, activation energy, peak properties

ABSTRACT: The internal friction of CuAu and Cu sub 3 Au alloys was studied during cooling in order to determine its peak properties. It is assumed that temperature change reflects the kinetics of the regulation processes. If an hypothesized tolerance for the interaction between internal friction and process regulation is correct, it is possible to compute from isothermic curvature, the time of relaxation of the system to a thermodynamically stable state. From examination of frequency of fluctuation of the peak, displacing toward the high temperatures and decreasing in size, it is inferred that the processes which cause peaks in internal friction apparently involve a reorganization of atoms during regulation. Thus the bond energy of hetero atoms is somewhat greater than that of the uniform atoms. The experimentally determined value for activation energy reflects this fact. Orig. art.

Card 1/2)

*Yanovskiy Polytechnic Inst. & Khar'kov Pedagogical Inst.*



*USANOV, V. V.*

AID Nr. 987-8 11 June

POSSIBLE SOLUTIONS OF THERMODYNAMIC EQUATIONS FOR VISCOUS  
GAS FLOW WITH HEAT TRANSFER (USSR).

Usanov, V. V. *vol. 6* Inzhenerno-fizicheskiy zhurnal, no. 4, Apr 1963, 22-26.  
S/170/63/000/004/003/017

A system of equations in terms of gasdynamic influence coefficients, describing a one-dimensional gas flow with allowance for friction and heat transfer through the wall, is considered. Possible methods of solving the equations are discussed. It is shown that in case of intensive heating the effect of heat transfer on the friction factor must be taken into consideration. [PV]

Card 1/1

~~L 10383-63~~ ~~EPR/KPA(b)/EPP(c)/EPP(n)-2/EWT(1)/BDS--AFFTC/AEDC/~~  
~~AFMDC/ASD/SSD--Ps-4/Pd-4/Pr-4/Pu-4--WW~~  
ACCESSION NR: AP3003046

S/0170/63/000/006/0037/0044 79

AUTHOR: Gukhman, A. A.; Gandel'sman, A. F.; Naurits, L. N.; Usanov, V. V. 78

TITLE: Characteristic features of supersonic flows directly adjoining the transonic region

SOURCE: Inzhenerno-fizicheskiy zhurnal, <sup>vol. 6</sup> no. 6, 1963, 37-44

TOPIC TAGS: transonic flow, supersonic nozzles, heat transfer, hydrodynamic theory

ABSTRACT: The relationship between heat transfer and hydrodynamic resistance in the transonic region of a gas flow has been investigated experimentally using a test section consisting of a water-cooled nozzle. The following parameters were measured: air-flow rate, static pressure along the nozzle length, stagnation temperature along the cross section before the test section, outside wall temperature of the nozzle, and amount of condensate. Thirteen test runs made

Card 1/2

L 10383-63

ACCESSION NR: AP3003046

covering three basic regimes for the temperature ranges 547.0--548.5K, 629.5--630.5K, and 698.5--699.0K. The results obtained are given in the form of graphs showing pressure and heat-flux distribution, temperature variations, distribution of the coefficient of hydraulic resistance, and of the Stanton number. It is shown that the passage through transonic velocity is accompanied by a disturbance in the normal form of the relationship between the intensity of heat transfer and the hydraulic resistance; beginning with the value of the thermal conductivity of the wall of the nozzle,  $\Lambda = 1.35$ , the basic relationship of the hydrodynamic theory of heat transfer can be applied with accuracy sufficient for practical engineering problems. Orig. art. has: 5 figures, 12 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 03Apr63

DATE ACQ: 22Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 007

OTHER: 000

ph/se

Card 2/2

MAL'TSEVA, G.K.; POSTNIKOV, V.S.; USANOV, V.V.

Internal friction in binary ordered alloys with a face-centered cubic lattice. Fiz. met. i metalloved. 16 no.2:302-309 Ag '63.  
(MIRA 16:8)

1. Voronezhskiy politekhnicheskii institut i Kemerovskiy pedagogicheskii institut.

(Alloys—Metallography) (Crystal lattices)  
(Internal friction)

ISANOV, V.V., inzh.; Prinimali uchastiye: NAURITS, L.N., inzh.; TSIKLURI,  
G.V.; SHISHOV, Ye.V.; VSEKHEVYATSKIY, V.N.; teknik; PONOMAREVA,  
T.A.; teknik; SHCHERBAKOV, V.D.; teknik; SPESIVYKH, A.F., teknik

Heat exchange and resistance in an axisymmetric nozzle at  
low supersonic speeds. Trudy VNIIMASH no.5161-83 '62.  
(MIRA 18:3)

L 42442-65 EWT(1)/EPA(s)-2/EWT(m)/EWA(d)/T/ENP(t)/EPA(bb)-2/ENP(z)/EWA(c)/  
ENP(b) Pt-7 LJP(c) JD

ACCESSION NR: AR5009706

UR/0058/65/000/002/E103/E103

SOURCE: Ref. zh. Fizika, Abs. 2E794

39  
B

AUTHOR: Antonov, I. V.; Usanov, V. V.; Radionov, A. A.

TITLE: Time dependence of magnetization on the time and recrystallization

CITED SOURCE: Uch. zap. Kemerovsk. gos. ped. in-t, vyp. 7, 1963, 87-89

TOPIC TAGS: time dependence, magnetization, recrystallization, magnetic structure, thermomagnetic working, magnetic alloy

TRANSLATION: It is shown experimentally that the recrystallization occurring (during the thermomagnetic working of nickel, iron, 65-permalloy, 79-permalloy, perminvar, and permendur exerts practically no effect on the formation of the magnetic texture in these substances.

SUB CODE: EM, MM

ENCL: 00

Card 1/2 *ce*

L 13277-65 EMT(1)/EMP(n)/EWT(n)/EWP(w)/EFF(n)-2/EMA(d)/EFF(c)/RPR/T/EMP(t)/FCS(k)/  
EPA(bb)-2/EMP(b)/EMA(1) Pd-1/Pr-4/PS-4/Pu-4 JD/MM  
ACCESSION NR: APL047817 S/017:/64/000/010/0003/0005

AUTHOR: Usanov, V. V.

TITLE: Relation between heat transfer and friction in the transonic regime

SOURCE: Inzhenerno-fizicheskiy zhurnal, no. 10, 1964, 3-5

TOPIC TAGS: transonic flow, heat transfer, hydrodynamic theory

ABSTRACT: A generalized relation of the hydrodynamic heat-transfer theory for the transonic region is derived. It is shown that such a relation contradicts the conditions of continuous transition through the velocity of sound. Based on the general velocity reversal effect equation, the relation between heat transfer and friction in the transonic regime is given by

$$\left[ \frac{dL_r}{dQ} \right]_{n=1} = -\frac{k-1}{k} \left[ 1 - \frac{4R'/R}{(k+1)Q/Q} \right]_{n=1}$$

for a variable section channel. Generalizing the hydrodynamic heat transfer theory, the relation between  $\zeta$  and  $\zeta_p \equiv 8St$  is derived in the form

$$\frac{\zeta}{\zeta_p} = \frac{k+1}{2k} \left[ 1 - \frac{T_w}{T_\infty} \right] \left[ 1 - \frac{4}{(k+1)} \frac{R'Q}{RQ'} \right] \sqrt{1+R'}$$

Card 1/3

L 13277-65

ACCESSION NR: AP4047817

which for a straight tube becomes  $\frac{\zeta}{\zeta_p} = \frac{k+1}{2k} \left[ 1 - \frac{T_w}{T_c} \right]$ .

This shows that the generalized hydrodynamic heat transfer theory  $\zeta/\zeta_p = 1$  contradicts the condition of continuous transition through  $M = 1$ . The curve in Fig. 1 on the Enclosure based on experimental data by A. A. Gukhman, A. P. Gandel'sman, L. N. Naurits, and V. V. Usanov (IFZh, No. 6, 1963) shows that the value of  $\zeta/\zeta_p$  near the throat drops sharply. The last equation given represents the lower limit for cylindrical tubes with heat transfer through the channel walls at a fixed temperature factor. Orig. art. has: 7 formulas and 2 figures.

ASSOCIATION: none

SUBMITTED: 05Jul63

ENCL: 01

SUB CODE: TD, GP

NO REF SOV: 004

OTHER: 000

Card 2/3



L 13277-65

ACCESSION NR: AP4047817

ENCLOSURE: 01

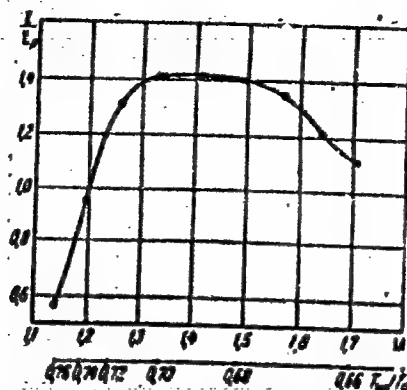


Fig. 1.  $\gamma/\gamma_p$  as a function of  $M$  and  $T_w/T_0$ .

Card 3/3

L 17520-65 ENT(m)/ENP(w)/ENA(d)/T/ENP(t)/ENP(b) ASD(n)-3/SSD/APNL/AFETR  
ACCESSION NR: AP4049069 JD/HW S/0148/64/000/011/0149/0154

AUTHOR: Postnikov, V. S.; Usanov, V. V.; Sharshakov, I. M.

TITLE: Effect of heat treatment on physical and mechanical properties of austenitic-martensitic steels

SOURCE: IVUZ. Chernaya metallurgiya, no. 11, 1964, 149-154

TOPIC TAGS: austenitic martensitic steel, precipitation hardenable steel, internal friction, resistivity, structure property

ABSTRACT: Five austenitic-martensitic stainless steels<sup>18</sup> (see Table 1 of the Enclosure) were studied by measuring their internal friction and resistivity on cooling from 700—1200C and, in some cases, on heating in an attempt to determine the effect of annealing temperature on the character of structural changes and mechanical properties. The temperature dependence of the internal friction and resistivity of steels A, B, C, and E was found to follow the same pattern (see Fig. 1 of the Enclosure). No peaks were observed on internal friction-temperature or resistivity-temperature curves for steel D which, unlike the rest of the steels, had a fully

Card 1/4

L 17520-65

ACCESSION NR: AP4049069

2  
18 austenitic structure after annealing and air cooling. Temperatures of the peaks of internal friction coincide with those of resistivity peaks and the M<sub>s</sub> temperatures for A, B, C and E steels. The level of internal friction at room temperature drops continuously with annealing temperature increased up to 850—1000C and rises sharply with further increases of temperature. The latter increase is explained by an increased stability of austenite and by some changes in  $\delta$ -ferrite, apparently a precipitation of  $\sigma$ -phase on the  $\gamma$ - $\delta$  interface. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Voronezhskiy polytekhnicheskii institut (Voronezh Polytechnic Institute)

SUBMITTED: 20Apr64

ENCL: 02

SUB CODE: HM

NO REF SOV: 009

OTHER: 000

ATD PRESS: 3151

Card 2/4

L 17520-65

ACCESSION NR: AP4049069

ENCLOSURE: 01

Table 1. Chemical composition of  
austenitic-martensitic stainless  
steels

	C	Cr	Ni	Mo	W	Al
A . . . . .	0.07	16.60	5.35	1.85	—	—
B . . . . .	0.10	15.33	5.85	—	—	0.72
C . . . . .	0.08	16.45	6.53	2.36	0.8	—
D . . . . .	0.07	16.02	11.1	—	—	—
E . . . . .	0.09	16.13	6.99	—	—	—

Card 3/4

E 17520-63

ACCESSION NR: AP4049069

ENCLOSURE: 02

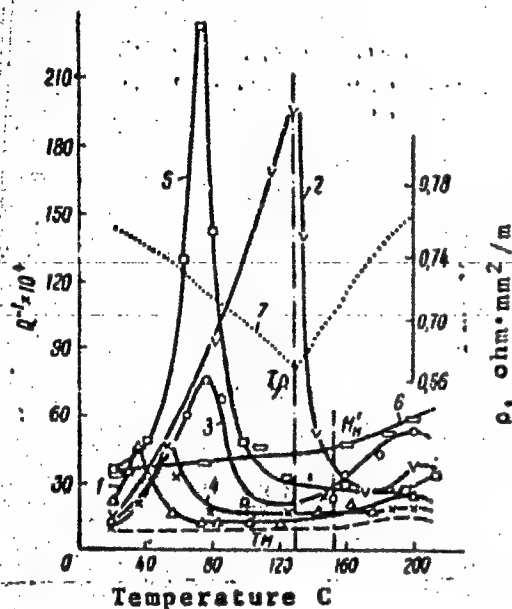


Fig. 1. Temperature dependence on internal friction of Steel A during cooling from 750C (1), 850C (2), 950C (3), 1050C (4), 1200C (5), and heated after cooling from 1200C (6), and of resistivity during cooling from 850C.

Card 4/4

L 9963-65

ENT(m)/I/ENP(b)

MTW/ID/MLK

ACCESSION NR: AT4046870

S/0000/64/000/000/0367/0357/75

AUTHOR: Postnikov, V. S., Gorenkov, G. A., Zolotukhin, I. V., Sharshakov, I. M., Usanov, V. V. 13

TITLE: Effect of different kinds of treatment on some properties of SN-2 and SN-3 steel 16

SOURCE: AN SSSR, Nauchnyy v sovets po probleme zharoprochnykh spлавov. Issledovaniya staley i spлавov (Studies on steels and alloys). Moscow, Izd-vo Nauka, 1964, 367-375

TOPIC TAGS: steel structure, steel crystallization, normalizing, steel strength steel internal friction, steel cold working, stainless steel 16

ABSTRACT: High-strength stainless steels of the transient austenitic-martensitic class are widely used. Since they are between the austenitic and martensitic grades their properties may be changed with ease. In the present article, the effects of normalizing, cold working and aging on SN-2 and SN-3 steels are considered. The chemical composition of the steel, supplied by a plant in Voronezh, was standard. Internal friction was investigated by a pendulum and on a device designed by V. V. Usanov and I. M. Sharshakov for samples 5 mm in diameter and 60 mm long. Microhardness was determined on the PMT-3 device,

Card

1/5

L 9963-65

ACCESSION NR: AT4046870

limiting strength on the MP-0.5 machine, and the microstructure under an MIM-8m microscope. The data are tabulated and shown in Figs. 1-3 of the Enclosure. The lowest strength and microhardness were obtained after normalizing; the highest after additional treatment by cold working and aging. All aged samples, no matter what treatment was used, had a lower strength at higher temperatures. At 450C, the strength drops sharply, while internal friction changes in the opposite way. The hardening of steel after normalizing with further cold working leads to a decrease in internal friction caused by disintegration of martensite and formation of a carbide with an increase in strength at room temperatures. Microscopic study of SN-2 steel shows that the  $\alpha$ - $\gamma$  transformation begins near 480C and ends near 750C, causing a rise in internal friction. The occurrence of this increase is not completely explained, however, since the peak on the curve for SN-2 steel depends to some extent on the normalizing temperature. Orig. art. has: 7 figures and 2 tables.

ASSOCIATION: None

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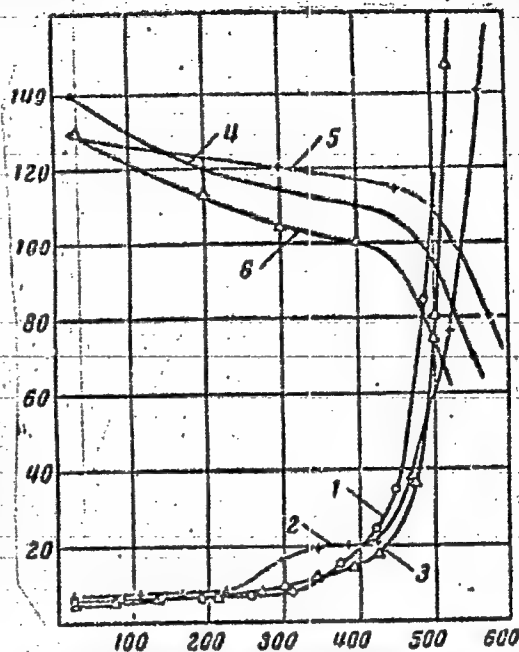
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ENCLOSURE: 01

Fig. 1. Dependence of temperature curves of internal friction (1-3) and strength (4-6) of SN-2 and SN-3 steel on the mechanical and thermal treatment. Data on strength were taken from the article by M. F. Aleksenko:

1, 4-SN-2 steel, cold worked, aged at 480C for 1 hour; 2, 5-SN-3 steel, cold worked, aged at 450C for 1 hour; 3-SN-2 steel normalized from 975C, cold worked in nitrogen, aged; 6-the same, normalized from 950C, cold worked at -70C for 2 hours, aged.



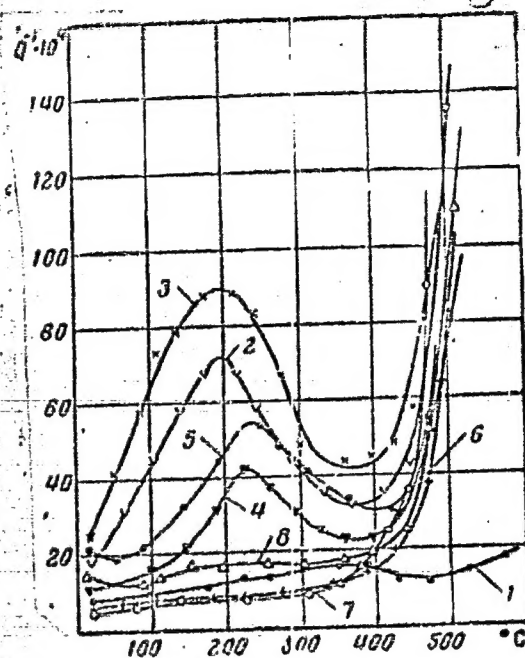
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ENCLOSURE: 02

Fig. 2. Dependence of temperature curves of internal friction of SN-2 steel on mechanical and thermal treatment:  
1-normalized from 975C; 2-normalized from 975C + cold working in nitrogen; 3-normalized from 975C + cold working at 70C; 4-normalized from 975C + compression of 41% 6-treatment the same as curve 2 + aging at 500C for 1 hour; 7-treatment the same as in curve 4 + aging; 8-treatment the same as curve 5 + aging.



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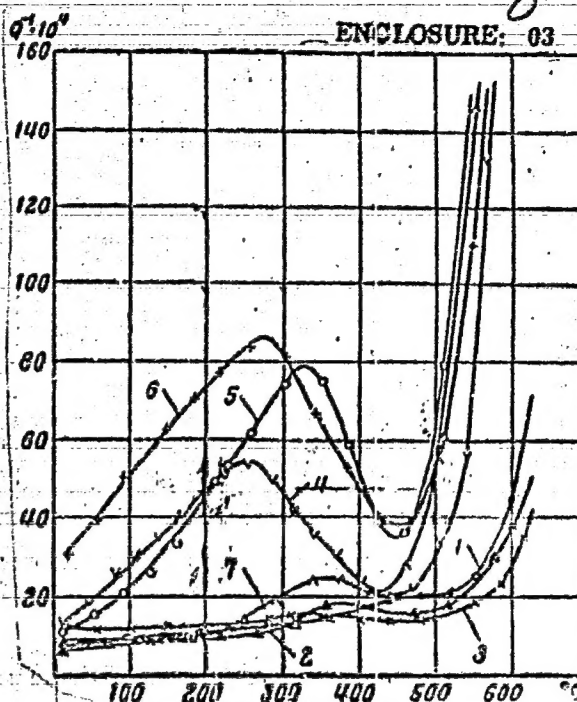
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ENCLOSURE: 03

Fig. 3. Dependence of temperature curves of internal friction of SN-3 steel on mechanical and thermal treatment:

- 1-normalized from 930C;
- 2-normalized from 1050C;
- 3-normalized from 1100C;
- 4-normalized + cold working in nitrogen;
- 5-normalized + compression of 30%;
- 6-normalized + cold working in nitrogen + compression of 30%;
- 7-normalized + compression of 30% + aging.



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